- L17 ANSWER 1 OF 7 USPATFULL on STN
- TI System for dispensing pharmaceutical active compounds

AB A system for dispensing a clinically effective dose of an inhalable, pharmaceutically active compound, which system includes a dry powder inhaler device containing a powder containing the pharmaceutically active compound, wherein

- (a) of the powder particles dispensed by the inhaler device (the "metered DPI dose"), at least 40% are less than about 10 microns in diameter at the point the particles exit the inhaler,
- (b) the metered DPI dose is sufficient to produce a clinically effective result in a patient; and
- (c) the amount of the compound in the metered DPI dose is not more than 70% of the minimal amount of the compound which, when dispensed in a pressurized metered dose inhaler, produces an equivalent clinically effective result in the same patient.

ACCESSION NUMBER: 2002:62599 USPATFULL

TITLE: System for dispensing pharmaceutical active compounds

INVENTOR(S): Andersson, Jan, S{overscore (o)}dra Sandby, SWEDEN
Jagfeldt, Hans, Lund, SWEDEN

Trofast, Eva, Lund, SWEDEN

Wetterlin, Kjell, S{overscore (o)}dra Sandby, SWEDEN
PATENT ASSIGNEE(S): AB Astra, Sodertalje, SWEDEN (non-U.S. corporation)

APPLICATION INFO.: US 1999-309039 19990510 (9)
RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-866749, filed on 30

May 1997, now patented, Pat. No. US 5934273 Continuation of Ser. No. US 1996-654006, filed on 29 May 1996, now patented, Pat. No. US 5642728

Continuation of Ser. No. US 1993-165402, filed on 10 Dec 1993, now abandoned

PRIORITY INFORMATION: SE 1992-3743 19921211
DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Weiss, John G.
ASSISTANT EXAMINER: Srivastava, V.

LEGAL REPRESENTATIVE: Fish & Richardson P.C.

NUMBER OF CLAIMS: 4 EXEMPLARY CLAIM: 1

AB

NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 457

L17 ANSWER 4 OF 7 USPATFULL on STN

TI System for dispensing pharmaceutically active compounds

A system for dispensing a clinically effective dose of an inhalable, pharmaceutically active compound, which system includes a dry powder inhaler device containing a powder containing the pharmaceutically active compound, wherein

(a) of the powder particles dispensed by the inhaler device (the "metered DPI dose"), at least 40% are less than about 10 microns in diameter at the point the particles exit the inhaler,

- (b) the metered DPI dose is sufficient to produce a clinically effective result in a patient; and
- (c) the amount of the compound in the metered DPI dose is not more than 70% of the minimal amount of the compound which, when dispensed in a pressurized metered dose inhaler, produces an equivalent clinically effective result in the same patient.

KIND DATE

ACCESSION NUMBER: 2001:96329 USPATFULL

TITLE: System for dispensing pharmaceutically active compounds

INVENTOR(S): Andersson, Jan, Sodra Sandby, Sweden Jagfaldt, Hans, Lund, Sweden

Trofast, Eva, Lund, Sweden Wetterlin, Kjell, Sodra Sandby, Sweden

NUMBER

PATENT ASSIGNEE(S): AB Astra, Sodertalje, Sweden (non-U.S. corporation)

PATENT INFORMATION: US 6250300 Bl 20010626
APPLICATION INFO.: US 1999-418342 19991014 (9)
RELATED AFPLN. INFO:: US 1999-418342 19991014 (9)
1999 Continuation of Ser. No. US 1997-866749, filed on 30 May 1997, now patented, Pat. No. US 5934273
Continuation of Ser. No. US 1996-654006, filed on 29
May 1996, now patented, Pat. No. US 5642728
Continuation of Ser. No. US 1993-165402, filed on 10

Dec 1993, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Dawson, Glenn K.
ASSISTANT EXAMINER: Srivastava, V.

ASSISTANT EXAMINER: Srivastava, V. LEGAL REPRESENTATIVE: Fish & Richardson P.C.

NUMBER OF CLAIMS: 8 EXEMPLARY CLAIM: 1

AB

NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 464

L17 ANSWER 5 OF 7 USPATFULL on STN

TI System for dispensing pharmaceutically active compounds

A system for dispensing a clinically effective dose of an inhalable, pharmaceutically active compound, which system includes a dry powder inhaler device containing a powder containing the pharmaceutically active compound, wherein

(a) of the powder particles dispensed by the inhaler device (the "metered DPI dose"), at least 40% are less than about 10 microns in diameter at the point the particles exit the inhaler,

 $\mbox{(b)}$ the metered DPI dose is sufficient to produce a clinically effective result in a patient; and

(c) the amount of the compound in the metered DPI dose is not more than 70% of the minimal amount of the compound which, when dispensed in a pressurized metered dose inhaler, produces an equivalent clinically effective result in the same patient.

ACCESSION NUMBER: 1999:91006 USPATFULL

TITLE: System for dispensing pharmaceutically active compounds

INVENTOR(S): Andersson, Jan, Sodra Sandby, Sweden

Jagfeldt, Hans, Lund, Sweden Trofast, Eva, Lund, Sweden

Wetterlin, Kjell, Sodra Sandby, Sweden

PATENT ASSIGNEE(S): AB Astra, Sodertalie, Sweden (non-U.S. corporation)

> NUMBER KIND DATE US 5934273

PATENT INFORMATION: US 5934273 19990810 US 1997-866749 19970530 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-654006, filed on 29

May 1996, now patented, Pat. No. US 5642728 which is a continuation of Ser. No. US 1993-165402, filed on 10 Dec 1993, now abandoned

NUMBER PRIORITY INFORMATION: SE 1992-3743 19921211

DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Weiss, John G. ASSISTANT EXAMINER: Srivastava, V.

LEGAL REPRESENTATIVE: Fish & Richardson P.C.

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

4 Drawing Figure(s); 2 Drawing Page(s) NUMBER OF DRAWINGS: LINE COUNT:

L17 ANSWER 7 OF 7 USPATFULL on STN

TΙ System for dispensing pharmaceutically active compounds AB

A method is provided for dispensing a clinically effective dose of an inhalable, pharmaceutically active compound. The method includes providing a dry powder inhaler containing a powder including the pharmaceutically active compound, and administering to a patient a dose of the compound that is less than 70% of the dose that would be necessary to obtain a physiologically equivalent result were the compound administered by a pressurized metered dose inhaler. The

pharmaceutically active compound is in the form of primary particles at least 80% of which have a particle size of less than 10 microns, and the primary particles are provided as agglomerates which are deagglomerated during inhalation so that at least 40% of the dose

administered is in the form of primary particles.

ACCESSION NUMBER: 97:55502 USPATFULL

TITLE: System for dispensing pharmaceutically active compounds

INVENTOR(S): Andersson, Jan, Sodra Sandby, Sweden Jagfeldt, Hans, Lund, Sweden

Trofast, Eva, Lund, Sweden

Wetterlin, Kiell, Sodra Sandby, Sweden

AB Astra, Sodertalje, Sweden (non-U.S. corporation) PATENT ASSIGNEE(S):

NUMBER KIND DATE PATENT INFORMATION: US 5642728 19970701 APPLICATION INFO.: US 1996-654006 19960529 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1993-165402, filed on 10

Dec 1993, now abandoned

NUMBER DATE PRIORITY INFORMATION: SE 1992-3743 19921211 DOCUMENT TYPE: Utility

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FILE SEGMENT:
                        Granted
PRIMARY EXAMINER:
                       Millin, Vincent
ASSISTANT EXAMINER:
                       Raciti, Eric P.
LEGAL REPRESENTATIVE: Fish & Richardson P.C.
NUMBER OF CLAIMS:
                       4
EXEMPLARY CLAIM:
NUMBER OF DRAWINGS:
                       4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT:
                       448
=> d his
     (FILE 'HOME' ENTERED AT 20:59:04 ON 17 FEB 2008)
     FILE 'USPATFULL, CAPLUS, MEDLINE' ENTERED AT 20:59:26 ON 17 FEB 2008
         145643 S (ADRENALINE OR EPINEPHRINE OR EPIFRIN OR EPITRATE OR LYOPHRIN
L2
           4977 S L1 (S) (DPI OR (DRY(W)POWDER(W)INHALER) OR INHALA? OR RESPIRA
             74 S L2 (S) ((DRY(W)POWDER) OR PARTICULATE OR PARTICLE)
L3
L4
             8 S L3 (S) (TARTRATE OR BITARTRATE)
L5
             7 DUP REM L4 (1 DUPLICATE REMOVED)
L6
             3 S L5 NOT PD>20020628
L7
             9 S L3 AND (TARTRATE OR BITARTRATE)
             8 DUP REM L7 (1 DUPLICATE REMOVED)
L8
L9
             4 S L8 NOT PD>20020628
L10
              1 S L9 NOT L6
           486 S L2 AND ((DRY(W)POWDER) OR PARTICULATE OR PARTICLE)
           268 S L11 AND (ADRENALINE OR EPINEPHRINE (P) (TARTRATE OR BITATRATE
L12
L13
            48 S L12 AND LEUCINE
L14
            47 DUP REM L13 (1 DUPLICATE REMOVED)
L15
             7 S L14 NOT PD>20020628
L16
             7 S L15 NOT L9
L17
             7 S L16 NOT L6
=> d que L1
         145643 SEA (ADRENALINE OR EPINEPHRINE OR EPIFRIN OR EPITRATE OR
               LYOPHRIN OR MICRONEFRIN OR MICRONEPHRINE OR VAPONEFRIN OR
                (51-43-4/RN))
=> d que L2
         145643 SEA (ADRENALINE OR EPINEPHRINE OR EPIFRIN OR EPITRATE OR
               LYOPHRIN OR MICRONEFRIN OR MICRONEPHRINE OR VAPONEFRIN OR
                (51-43-4/RN))
L2
           4977 SEA L1 (S) (DPI OR (DRY(W) POWDER(W) INHALER) OR INHALA? OR
               RESPIRA?)
=> d aue L12
L1
         145643 SEA (ADRENALINE OR EPINEPHRINE OR EPIFRIN OR EPITRATE OR
                LYOPHRIN OR MICRONEFRIN OR MICRONEPHRINE OR VAPONEFRIN OR
                (51-43-4/RN))
L2
           4977 SEA L1 (S) (DPI OR (DRY(W) POWDER(W) INHALER) OR INHALA? OR
                RESPIRA?)
L11
            486 SEA L2 AND ((DRY(W) POWDER) OR PARTICULATE OR PARTICLE)
L12
           268 SEA L11 AND (ADRENALINE OR EPINEPHRINE (P) (TARTRATE OR
                BITATRATE))
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